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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,432	01/14/2004	Atousa Soroushi	VP077	5658

20178	7590	10/19/2006

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EXAMINER
YU, JAE UN

ART UNIT	PAPER NUMBER
2185	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 June 2006</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>14 January 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

The examiner acknowledges the applicant's submission of the amendment dated

6/8/2006. At this point claims 1-20 have been amended. Thus, claims 1-20 are

pending in the instant application.

Response to Amendment

In view of the applicant's amendment, the objection for the specification is

withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lewis et

al. (US 5, 913, 231).

2.   **Independent claims 1, 7 and 13** disclose, "determining that a first condition is

true, the first condition being that an address of a first location in a memory space has

been transmitted on a bus, the address of the first location including at least one first

part **[transmitting a portion of a second address for a second data request,**

Column 1, Lines 43-35] and a second part **["page address", Column 3, Lines 18-20, Figure 4]**".

"Determining that a second condition is true, the second condition being that at least one first part of an address of a second location **[first part of the "First Address", Column 3, Lines 18-20]** in the memory space has been transmitted on the bus in a particular address cycle **[address transmission cycles 300-306, Figure 4]**"

"Determining that a third condition is true, the third condition being that a first control signal associated with the bus indicates that a next bus cycle following the particular address cycle **[address transmission cycles 300-306, Figure 4]** is not an address cycle **[data transmission cycle 308 following the address transmission cycle, Figure 4]**"

"Determining, if the first, second and third conditions are true, that the second part of the address of the first location is substantially equivalent to a second part of the address of the second location" **Lewis et al. disclose, "determining if the first and the second addresses are located on a common page" 304 in Figure 4, wherein the page address from the first address and the page address from the second address are compared.**

3.   **Claim 2** discloses, "storing the second part of the address of the first location in a register **[the address is stored in a latch, Column 3, Lines 26-29]**".

4.   **Claims 3, 10 and 14** disclose, "forming, if the second part of the address of the first location is substantially equivalent to the second part of the address of the second location, the address for the second location from the second part of the address of the first location and the at least one first part of the address of the second location **[combining the cache line address of the currently requested address ("first part of the address of the second location") with the previous page address ("second part of the address of the first location"), Column 4, Lines 16-20]**".

5.   **Claims 4, 11 and 15** disclose, "if the second part of the address of the first location is not substantially equivalent to the second part of the address of the second location **["Previous Address NOT Valid" 416, Figure 5]**, transmitting on the bus a second part of the address of the second location, and forming the address of the second location from the at least one first part of the address of the second location and the second part of the address of the second location **[transmitting a complete "Address" 406, Figure 5]**".

6.   **Claim 5** discloses, "transmitting an address of a first register in a first address cycle **[address requests proceeds data write, Figure 4]**, and storing the at least one first part of the address of the first location in the first register in a second address cycle

[storing a portion of a second address for a second data request after the

address transmission, Column 1, Lines 43-35]".

"Transmitting an address of a second register in a third address cycle **[address**

requests proceeds data write, Figure 4], and storing the second part of the address

of the first location in. the second register in a fourth address cycle **[storing "page**

address" after the address transmission, Column 3, Lines 18-20, Figure 4]"

7.   <u>Claim 6</u> discloses, "transmitting an address of a first register in a first address

cycle **[address requests proceeds data write, Figure 4]**, and storing at least one first

part of an address of a third location in the memory space in a first register in a second

address cycle **[storing a portion of a second address for a second data request**

after the address transmission, Column 1, Lines 43-35]".

"Transmitting an address of a second register in a third address cycle **[address**

requests proceeds data write, Figure 4], and storing the second part of the address

of the third location in the second register in a fourth address cycle **[storing "page**

address" after the address transmission, Column 3, Lines 18-20, Figure 4]"

"Storing the at least one first part of the address of the first location in the first register in

a fifth address cycle **[storing a portion of a second address for a second data**

request during a particular time frame after the address transmission, Column 1,

Lines 43-35]"

"Storing the second part of the address of the first location in the second register in a

sixth address cycle **[storing "page address" during a particular time frame after the**

address transmission, Column 3, Lines 18-20, Figure 4]"

8.   .Claims 8 and 9 have the same scope as the claims 1, 7 and 13. Therefore,

claims 8 and 9 are rejected by the same reasons as claims 1, 7 and 13 (See the

corresponding claim rejections above).

9.   **Claims 12 and 19** disclose, "a machine readable medium embodying a program

of instructions for execution by a machine to perform determination if the first, second,

and third conditions are true, and to from the address for the second location in the

memory space". **Lewis et al. disclose a computer-readable medium storing**

software that performs the corresponding method in column 5, at lines 7-11.

10.   **Claims 16 and 17** disclose, "a processor coupled with the bus **[Figure 1]**" which

performs the corresponding method.

11.   **Claims 18 and 20** disclose, "a memory having a plurality of locations, each

location having an address in the memory space **[cache addressable by a plurality of**

addresses, Figure 1 & 4]".

Arguments Concerning Prior Art Rejections

1st Point of Argument

Regarding claims 1, 7 and 13, the applicant argues that Lewis fails to disclose

transmitting part of an address for a second location on the same bus that is used to

transmit the address for a first location because the "Cache Line Address" and the "Bus

Address" (Figures 6a & 6b, Lewis) are distinct from each other. However, since the

"cache line" exists in a cache (i.e. a row of data in a cache), it does not correspond to

the "bus" from the claim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

A.   Claims Rejected in the Application

Per the instant office action, claims 1-20 have received a second action on the

merits and are subject of a second action final.

B.   Direction of Future Correspondences

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jae Un Yu who is normally available from 9:00 A.M. to

5:30 P.M. Monday thru Friday and can be reached at the following telephone number:

(571) 272-1133.

If attempts to reach the above noted examiner by telephone are unsuccessful,

the Examiner's supervisor, Sanjiv Shah, can be reached at the following telephone

number: (571) 272-4098.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

10/4/2006   Jae Un Yu
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                                                 JY

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